

REMARKS

Claims 10, 11, 14-16 and 33-52 are pending in the application.

I. ISSUES RELATED TO CITED REFERENCES

A. 35 U.S.C. 102(b) - *MONTAGUE*

Claims 10, 11, 33-41 and 45-48 are rejected under 35 U.S.C. 102(b) as allegedly anticipated by Montague et al., U.S. Patent No. 5,761, 669 (hereafter "*Montague*"). The rejection is respectfully traversed.

Independent Claim 33

Independent method claim 33 recites:

identifying first sub-entries in a *first access control list*, wherein the first access control

list comprises first entries, and wherein *the first sub-entries identified from the*

first access control list comprise (i) disjoint entries of the first entries or (ii)

overlapping sections identified from the first entries or (iii) non-overlapping

sections identified from the first entries; and

programmatically determining whether the first access control list is functionally

equivalent to a *second access control list* by determining whether each of the first

sub-entries in the first access control list is equivalent to or contained by one or

more entries of the second access control list.

(emphasis added). Claim 33 provides a method of comparing access control lists (ACLs), even if any of the access control lists contain highly redundant entries or overlapping sections of entries. According to claim 33, first sub-entries are identified from a first ACL that comprises first entries. The identified first sub-entries comprise 1) disjoint entries of the first entries, 2) overlapping sections identified from the first entries, or 3) non-overlapping sections identified from the first entries. Once the first sub-entries are identified from the first ACL, determining whether the first ACL is **functionally equivalent** to a second ACL can be done **using the first**

sub-entries just identified. Specifically, it is determined whether each of the first sub-entries is equivalent to or contained by one or more entries of the second ACL.

Thus, under this approach, even if the first entries of the ACL are highly redundant or overlap, in determining the functional equivalency of the two ACLs it is not necessary to perform comparison operations using the highly redundant or overlapping first entries directly. Instead, according to claim 33, determining the functional equivalency of the two ACLs is reduced to determining whether each of the first sub-entries identified from the first ACL is equivalent to or contained by one or more entries of the second ACL. One result is that determining whether two ACLs are functionally equivalent is far faster.

Such a method is neither disclosed nor suggested by *Montague*. Instead, *Montague* describes processing a generic access control request from a trustee to alter access permissions on an entity, translating the generic access control request received into a local operating system specific format, and changing an existing ACL for the entity (Abstract; FIGs 9 & 10) based on the received access control request.

As described in col. 14 line 60 – col. 15 line 27 of *Montague*, a trustee provides account ID, access permissions, and an entity (to which the permissions are applied) in an access control request (254 of FIG. 11) to a server that hosts an existing ACL (ACCESS CONTROL LIST PRIOR TO REQUEST of FIG. 11). The existing ACL sought to be changed by the access control request may include one or more existing access control entries (ACEs) for the entity (258 of FIG. 11). After being translated into a local operating specific format, the access control request received is merged with the existing ACL into a new ACL (*Montague* col. 15 lines 28-52; ACCESS CONTROL LIST AFTER MERGING REQUEST of FIG. 11). Specifically, in the merging step, existing ACEs (258 of FIG. 11) are identified for the entity in the existing ACL; and actions (enumerated in FIG. 15) are taken to add new ACEs, or remove/change the existing ACEs to produce the new ACL. These actions taken may be based on relationships between the existing ACEs and the access control request, as will be discussed *infra*.

As described in col. 16 line 18 – col. 17 line 25 (cited by the Examiner in October 31, 2006 Final Office Action) of *Montague*, an ACE for the entity (such as a container) may contain an inheritance attribute that defines a scope of permissions in the same ACE. Similarly, the access control request received may also carry an inheritance attribute that defines a scope of permissions in the request. As between these two scopes, various types of (containment) relationships may exist, as shown in FIG. 12 of *Montague*.

Depending on the (containment type) relationship (FIG. 12) between the existing scope of permissions as expressed by inheritance attributes of an existing ACE for the entity and the scope of permissions carried by the inheritance attribute in the access control request, a different action shown in FIG. 13 or FIG. 15 may be taken. Specifically, FIG. 13 is used if permissions of the existing ACE are of the same type as those of the access control request; or FIG. 15 is used if permissions of the existing ACE are of the opposite type to those of the access control request.

No Step of Identifying Sub-entries in *Montague*

As this discussion shows, *Montague* is quite different from that claimed in amended claim 33. *Montague*, for example, **fails to describe identifying sub-entries from an ACL**, as recited in claim 33. At best, *Montague* only describes identifying ACEs, or inheritance attributes thereof, in an existing ACL. That is not the same as what is claimed by claim 33.

No Step of Determining Equivalency Between ACLs in *Montague*

Claim 33 recites a first ACL and a second ACL. *Montague* describes only one ACL—an existing ACL prior to the access control request, and the same ACL after merging the access control request. Further, *Montague* **has no description of determining functional equivalency between two ACLs**, as claimed. *Montague* has no need for such a determining step in the first place; the “before” ACL and “after” ACL of *Montague* by definition are not functionally equivalent.

No Affirmative Step of Determining Equivalency Using Sub-entries in *Montague*

In claim 33, determining functional equivalency of two ACLs comprises determining whether each of the sub-entries identified from one of the two ACLs is contained by or equivalent to one or more entries in the other of the two ACLs. Since *Montague* only describes identifying entries or their inheritance attributes in an existing ACL, but completely fails to describe identifying anything resembling the sub-entries recited in claim 33, *Montague* cannot possibly disclose determining functional equivalency of the two ACLs by using sub-entries.

The Examiner's Analogy Is Incorrect

Page 4 of the Office Action cites a passage of *Montague* (col. 16 line 18 to col. 17 line 25) as allegedly describing claim 33, without correlating any entity described in the cited passage to any feature of claim 33. As best understood by Applicants, the Office Action analogizes the relationships depicted in FIG. 12 of *Montague* to various types of the sub-entries featured in claim 33. This analogy is incorrect. The depicted relationships in *Montague* are quite different from the types of the sub-entries featured in claim 33. In *Montague*, each relationship is between an existing entry in the existing ACL and the access control request previously discussed.

In contrast, a sub-entry as featured in claim 33 may, for example, be a disjoint entry of first entries or a non-overlapping section of first entries in a first ACL. Such a sub-entry is a first entry or a section of a first entry that does not overlap with *other first entries that are in the first ACL from which the sub-entry is identified*, while the disjoint entry 270 depicted in FIG. 12 of *Montague* is an existing ACE whose scope of permissions happens to be non-overlapping with that of *an access control request that is not in the existing ACL from which the existing ACE is identified*.

Similarly, a sub-entry as featured in claim 33 may, for example, be an overlapping section of first entries in the first ACL. Such a sub-entry is a section identified from the first entries that overlaps with another first entry or other first entries that are *in the first ACL from which the sub-entry is identified*, while an overlapping area in the overlapping relationships 272 through 278 depicted in FIG. 12 of *Montague* is an area of an existing ACE whose scope of

permissions overlaps with that of *an access control request that is not in the existing ACL from which the existing ACE is identified.*

Thus, even assuming existing ACEs of an existing ACL in *Montague* could be made analogous to the first entries of the first ACL featured in claim 33, the analogy of the Office Action is incorrect, since the relationships disclosed in *Montague* are relationships between an existing ACE in an ACL and an entity (i.e., an access control request) outside the ACL, not like relationships between some entries in an ACL and some other entries in the same ACL as featured in claim 33. At best, the passage cited by the Examiner and FIG. 12, both of *Montague*, only describes that an existing ACE in an existing ACL may be disjoint or overlapping with respect to an access control request that is outside the existing ACL. That is not the same as the subject matter of claim 33.

Montague addresses a very different problem than Applicants' disclosure. *Montague* is concerned with handling a generic access control request from a trustee and modifying an ACL into an updated ACL that reflects requested access permission changes. In sharp contrast, claim 33 addresses how to compare two ACLs to determine whether they are functionally equivalent, yet avoiding directly using possibly redundant, overlapping entries of one of the two ACLs. Since *Montague* addresses a very different problem, it provides a very different solution. For at least the reasons given above, claim 33 is allowable over *Montague*.

Claims 37 and 45

Claims 37 and 45 are apparatus format claims that are similar in scope and include all features of method claim 33. Claims 37 and 45 are patentable over *Montague* for at least the same reasons as those given above in connection with claim 33.

Claims 10, 11, 34-41 and 46-48

Claims 10, 11, 34-41 and 46-48 depend from, and hence, incorporate all of the features of claim 33, 37 or 45 that are discussed above. These claims also recite further features that independently render them patentable over *Montague*. However, because *Montague* lacks the

features discussed above for claims 33, 37, or 45, claims 10, 11, 34-41 and 46-48 necessarily are patentable over *Montague* for at least the reasons given above in connection with claim 33, 37 or 45.

B. 35 U.S.C. 103(a) – MONTAGUE and BRAWN

Claims 14, 42 and 50 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over *Montague* as applied to claims 33, 37 and 45 and further in view of Brawn et al., U.S. Patent No. 7,020,718 B2 (hereafter "*Brawn*"). The rejection is respectfully traversed.

Claims 14, 42 and 50 depend from, and hence, incorporate all of the features of claim 33, 37 or 45. Claims 14, 42 and 50 also recite further features that independently render them patentable over *Montague*. *Brawn* fails to disclose any of the features of claim 33, 37 or 45 previously discussed and therefore *Brown* does not cure the deficiencies of *Montague* that are described above, and any combination of *Brown* and *Montague* necessarily cannot provide the complete subject matter of claims 14, 42, and 50. Claims 14, 42, and 50 are patentable over *Montague* and *Brawn* for at least the reasons given above in connection with claim 33, 37 or 45.

C. 35 U.S.C. 103(a) – MONTAGUE and MATE

Claims 15, 43 and 51 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over *Montague* as applied to claims 33, 37 and 45, and further in view of Mate et al., U.S. Patent No. 7,028,098 B2 (hereafter "*Mate*"). The rejection is respectfully traversed.

Claims 15, 43 and 51 depend from and incorporate all of the features of claim 33, 37 or 45. Claims 15, 43, and 51 also recite further features that render them patentable over *Montague*. *Mate* fails to disclose any of the features of claim 33, 37 or 45 previously discussed, and therefore *Mate* does not cure the deficiencies of *Montague* that are described above, and any combination of *Mate* and *Montague* necessarily cannot provide the complete subject matter of claims 15, 43, and 51. Claims 15, 43, and 51 are patentable over *Montague* and *Mate* for at least the reasons given above in connection with claim 33, 37 or 45.

C. 35 U.S.C. 103(a) – MONTAGUE and BANGINWAR

Claims 16, 44 and 52 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Montague as applied to claims 33, 37 and 45, and further in view of Banginwar, U.S. Patent No. 6,611,863 B1 (hereafter "*Banginwar*"). The rejection is respectfully traversed.

Claims 16, 44 and 52 depend from, and hence, incorporate all of the features of claim 33, 37 or 45. Claims 16, 44, and 52 also recite further features that render them patentable over *Montague*. *Banginwar* fails to disclose any of the features of claim 33, 37 or 45 previously discussed and therefore *Banginwar* does not cure the deficiencies of *Montague* that are described above, and any combination of *Banginwar* and *Montague* necessarily cannot provide the complete subject matter of claims 16, 44, and 52. Claims 16, 44, and 52 are patentable over *Montague* and *Banginwar* for at least the reasons given above in connection with claim 33, 37 or 45.

II. CONCLUSIONS

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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